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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,731	06/26/2003	Kourosh Soroushian	02-6421 1496.00304	5840
24319 7590 04/09/2007 LSI LOGIC CORPORATION 1621 BARBER LANE MS: D-106 MILPITAS, CA 95035			EXAMINER HUBER, JEREMIAH C	
			ART UNIT	PAPER NUMBER
			2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/606,731

Applicant(s)

SOROUSHIAN, KOUROSH

Examiner

Jeremiah C. Huber

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/15/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3, 7-11 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Haskell et al (5742343).

In regard to claim 1 Haskell discloses a method of encoding and decoding video (Haskell Figs. 7-8, 19-20 and 38 and cols. 8-12) that includes:

generating first and second field pictures in response to a frame picture of a first bitstream (Haskell Figs. 7-8 and 38 and col. 8 lines 24-42 note progressive to two interlace converter provides one field of each frame to the enhancement and base layers);

generating a second bitstream including the first and second field pictures (Haskell Fig. 7 note SYS MUX c6250 and col. 8 lines 49-55 and col. 5 lines 48-59).

In regard to claim 3 refer to the statement made in the rejection of claim 1 above. Haskell further discloses copying alternating rows from frames to form fields (Haskell Fig. 38).

In regard to claim 7 refer to the statements made in the rejection of claim 1 above. Haskell further discloses presenting the second bitstream to a decoder (Haskell Fig. 7 note decoders c6300 and c6310)

In regard to claim 8 refer to the statements made in the rejection of claim 7 above. Haskell further discloses that the video decoder is configured to support a field picture (Haskell fig. 7 note output of base decoder c6300 is interlaced, hence field pictures).

In regard to claim 9 refer to the statements made in the rejection of claim 7 above. Haskell further discloses use of a television (Haskell col. 4 lines 59-67). Haskell further discloses outputting an interlace signal, which is inherently composed of odd and even lines (Haskell Fig. 7 note output of base decoder c6300 is interlaced).

In regard to claims 10-11 and 17-19 refer to the statements made in the rejection of claims 1 and 7-9 above.

In regard to claim 20 refer to the statements made in the rejection of claim 11 above. Haskell further discloses that the base encoders and decoders can be of the MPEG type and able to encode and decode I, or intra frames, and would therefore inherently support an MPEG intra-only mode (Haskell col. 9 lines 24 to 32 and col. 19 lines 5-10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haskell in view of Ng et al (5185819).

In regard to claim 5 refer to the statements made in the rejection of claim 1 in section 1 above. It is noted that Haskell does not disclose writing field pictures consecutively to the bitstream. However Ng discloses a multiplexer which alternatively outputs fields (Ng. col. 8 line 65 to col. 9 line 12). It is therefore considered obvious that one of ordinary skill in the art at the time of the invention would recognize the advantage of including alternating field multiplexing as taught by Ng in the invention of Haskell in order to transmit the data of one frame at approximately the same time.

3. Claims 1-3, 7-14, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al (20020028061) in view of Haskell and in further view of Boyce et al (5592299).

In regard to claims 1-2, Takeuchi discloses a method of reducing the output data of a coded bitstream by decimating coded frames and modifying frame headers to match (Takeuchi Fig. 1 and pars 49 to 68). It is noted that Takeuchi does not disclose details relating to field buffers. However Haskell discloses a method of separating a video stream into fields to form base and enhancement streams, that includes buffers into which individual fields are copied (Haskell Fig. 7 note buffers c6210 and c6180 and col. 8 lines 24-42). It is therefore considered obvious that one of ordinary skill in the art would recognize the advantage of combining the data reducing method with the structure and separating method of Haskell to affect copying and modification of frame

headers in the separate field headers on order provide base and enhancement streams as is suggested by Takeuchi (Takeuchi par 258).

It is further noted that Haskell does not disclose performing separation on coded video data. However Boyce discloses a method of forming coded video fields directly from coded video frames (Boyce Figs. 3A&B col. 7 line 58 to col. 9 line 12). It is therefore considered obvious that one of ordinary skill in the art would recognize the advantage of further modifying Takeuchi in view of Haskell to include the coded frame to field method described in Boyce in order to reduce processing complexity.

In regard to claim 3 refer to the statements made in the rejection of claims 1-2 in section 3 above. Haskell and Boyce further disclose copying alternating rows of a frame to form fields (Haskell Fig. 38 and Boyce Figs. 3A&B).

In regard to claim 7 refer to the statements made in the rejection of claim 1 in section 3 above. Haskell further discloses presenting the second bitstream to a decoder (Haskell Fig. 7 note decoders c6300 and c6310)

In regard to claim 8 refer to the statements made in the rejection of claim 7 in section 3 above. Haskell further discloses that the video decoder is configured to support a field picture (Haskell fig. 7 note output of base decoder c6300 is interlaced, hence field pictures).

In regard to claim 9 refer to the statements made in the rejection of claim 7 in section 3 above. Haskell further discloses use of a television (Haskell col. 4 lines 59-67). Haskell further discloses outputting an interlace signal, which is inherently

composed of odd and even lines (Haskell Fig. 7 note output of base decoder c6300 is interlaced).

In regard to claims 10-14 and 17-19 refer to the statements made in the rejection of claims 1-3 and 7-9 in section 3 above.

In regard to claim 20 refer to the statements made in the rejection of claim 11 in section 3 above. Haskell further discloses that the base encoders and decoders can be of the MPEG type and able to encode and decode I, or intra frames, and would therefore inherently support an MPEG intra-only mode (Haskell col. 9 lines 24 to 32 and col. 19 lines 5-10).

4. Claims 4, 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi in view of Haskell in further view of Boyce and Design Choice.

In regard to claims 4 and 15 refer to the statements made in the rejection of claims 1 and 14 in section 3 above. Takeuchi in view of Haskell in further view of Boyce discloses numbering field rows as consecutive odd or even increments.

Takeuchi in view of Haskell in further view of Boyce does not disclose expressly numbering field rows to increment consecutively.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to number rows consecutively. Applicant has not disclosed that numbering rows consecutively provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with consecutive even or odd

increments because they represent the television lines on which data will actually be displayed.

Therefore, it would have been obvious to combine to one of ordinary skill in this art to modify Takeuchi in view of Haskell in further view of Boyce with consecutive numbering to obtain the invention as specified in claim 4.

In regard to claim 6 refer to the statements made in the rejection of claim 4. It is further noted that neither Takeuchi, Haskell nor Boyce disclose expressly writing the first buffer into a bitstream before the second buffer. However, Haskell discloses that the writing of the buffers into the second bitstream is implement using a multiplexer (Haskell Fig. 7 note SYS MUX) and it is inherent to the function of a multiplexer to write from one buffer before another.

5. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi in view of Haskell in further view of Boyce and Ng.


In regard to claims 5 and 16 refer to the statements made in the rejection of claims 1 and 12 in section 3 above. It is noted that neither Takeuchi, Haskell nor Boyce disclose writing field pictures consecutively to the bitstream. However Ng discloses a multiplexer which alternatively outputs fields (Ng. col. 8 line 65 to col. 9 line 12). It is therefore considered obvious that one of ordinary skill in the art at the time of the invention would recognize the advantage of including alternating field multiplexing as taught by Ng in the invention of Takeuchi in view of Haskell in further view of Boyce in order to transmit the data of one frame at approximately the same time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremiah C. Huber whose telephone number is (571)272-5248. The examiner can normally be reached on Mon-Fri 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


MEHRDAD DASTOURI
SUPERVISORY PATENT EXAMINER
TC 2600

Jeremiah C Huber
Examiner
Art Unit 2621